BRUHAT BANGALORE MAHANAGARA PALIKE
BYTARAYANPURA DIVISION

Name of Work:

phalting to Roads and Improvements to Drains at Defence Layout
d Ashrama Road in ward no.6 Byatrayanapura Sub Division

1ST& FINAL BILL

DETAILED-MEASUREMENT

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Detailed Measurements

Bruhat Bengaluru Mahanagara Palike

Bytarayanapura Division

Name of Agency :- M/S Sathya constructions.

Bill No :- 1st and Final Bill

Name Of work : - Asphalting to Roads and Improvements to Drains at Defence Layout and Ashrama Road in ward no.6 Byatrayanapura Sub Division

Abstract Bill

BOQ Item No	Description / Chainage	Units	Nos	L(m)	B1(m)	B2(m)	B(m)	D(m)	Quantity	Rate	Amount
1	KSRRB M300-1. Earth work excavation by manual means in ordinary soil involving an average horizontal throw upto 2 meters and an average lift upto 0.5m. excavated surface levelled and sides neately dressed. the disposed earth to be levelled neatly after breaking of clods complete as per specification. MORTH / Chapter 3 (P.No.142, I.No.19.1 of PW, P&IWTD SR 2016-17)										
		cum		Qty as per premeasurement It No.1 P.No					307.41	201.67	61995.37
2	Removing and refixing stone slabs of drains and pointing in CM (1:3) (P.No.25, I.No.5.33 of PW, P&IWTD SR 2016-17)										
		Sqm		Qty as per premeasurement It No.2 P.No					972.00	86.92	84485.81
3	Providing granite Slabs of Selected quality roughly dressed and fixed in cement mortor (1:6) including fixing curing etc,. Complete. 7.5cms thick (P.No.25, I.No.5.31.1 of PW, P&IWTD SR 2016-17)										
		sqm		Qty as per premeasurement It No.3 P.No					539.55	718.20	387504.81
4	KSRB 4-1.2: Providing and laying in position plain cement concrete of mix 1:3:6 with OPC cement @ 220kgs. with 40mm and down size graded granite metal coarse aggregates @ 0.892 cum and fine aggregates @ 0.465 cum. machine mixed. concrete laid in layers not exceeding 15 cms. thick. well compacted. in foundation including cost of all materials. labour. HOM of machinery. curing complete as per specifications. Specification No. KBS 4.1, 4.2. (P.No.12, I.No.4.2 of PW,P&IWTD S.R 2016-17)										
		cum		Qty as per premeasurement It No.4 P.No					5.08	5770.78	29315.56
18	KSRB 5.2-3: Providing and constructing granite size stone masonry in foundation cement mortor 1:6. stone hammered dressed in courses not less than 20cms high. bond stones at 2m. apart in each course including cost of materaials. labour. curing complete as per specifications. Specifcation No. KBS 5.1.13.(using available stones) (P.No.23, I.No.5.6 of PW, P&IWTD S.R 2016-17)										
		cum		Qty as per premeasurement It No.18 P.No					13.41	4788.40	64212.44
19	KSRB 15.1.1 Providing flush pointing to square rubble. course or uncoursed stone masonry with cement mortar 1:3. 20mm deep, after raking joints to depth of 20mm nicely lining. including cost of materials. labour. curing complete as per specifications. (P.No.113, I.No.15.1 of PW, P&IWTD S.R 2016-17)										
		Sqm		Qty as per premeasurement It No.19 P.No					22.40	110.93	2484.83

Assistant Engineer 15/05/2020

Assistant Executive Engineer 15/5/2020

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led Measurements

BOQ Item No	Description / Chainage	Units	Nos	L(m)	B1(m)	B2(m)	B(m)	D(m)	Quantity	Rate	Amount
20	KSRB 4-1.6: Providing and laying in position plain cement concrete of mix 1:2:4 with cement @ 240kgs. with 20mm and down size graded granite metal coarse aggregates @ 0.878 cum and fine aggregates @ 0.459 cum. machine mixed. concrete laid in layers not exceeding 15 cms. thick. well compacted. in foundation and plinth. including cost of all materials. labour. HOM of machinery. curing complete as per specifications. Specification No. KBS 4.1. 4.2. (P.No.12. I.No.4.6 of PW,P&IWTD S.R 2016-17)										
		Cum		Qty as per premeasurement It No.20 P.No					1.68	6222.51	10453.82
9	Providing and fixing RCC Precast cover slab of 250mm thick for drain in cement concrete M20 using graded granite jelly 20mm and down size with steel reinforcement. including form work. lift charges. curing and concrete finished surfaces on both sides etc. complete and as per drawing and the directions of Engineer in-charge. (Data Rate)										
	For New Culvert	Sqm									
	Fatima layout		1	6.00				1.80	10.80		
	Fatima layout		1	6.00				1.80	10.80		
	Missing Slabs		1	2.00				1.80	3.60		
								Total Qty	25.20	5736.51	144560.05
10	KSRRB M300-14. Excavation for roadwork in soil with hydraulic excavator of 0.90 cum bucket capacity including cutting and loading in tippers. trimming bottom and side slopes. in accordance with requirements of lines. grades and cross sections. and transporting to embankment location and complete as per specifications. MORTH Specification No.301 (P.No.143. I.No.19.14 of PW,P&IWTD S.R 2016-17)										
		Cum		Qty as per premeasurement It No.10 P.No					562.78	160.50	90326.19
11	KSRRB M 400-17. Providing. laying. spreading and compacting graded stone aggregate to wet mix macadam specification including premixing the Material with water at OMC in mechaniqal mix plant carriage ' of mixed Material by tipper to site. laying in uniform layers with paver in sub- base/ base course on well prepared surface and compacting with vibratory roller to achieve the desired density.complete as per specifications. MORTH Specification No. 406 (P.No.158. I.No.20.18 of PW,P&IWTD SR 2016-17)										
		cum		Qty as per premeasurement It No.11 P.No					703.48	1907.58	1341934.84
12	KSRRB M 500-6. Providing and applying primer coat with SS bitumen emulsion on prepared surface of granular Base such as WBM WMM including clearing of road surface and spraying primer at the rate of 0.60 kglsqm using mechanical means complete as per specifications. As per MORTH specification clause No. 502 (P.No.161. I.No.21.6 of PW,P&IWTD SR 2016-17)										
		Sqm		Qty as per premeasurement It No.12 P.No					2813.90	32.02	90101.08

Assistant Engineer

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BOQ Item No	Description / Chainage		Units	Nos	L(m)	B1(m)	B2(m)	B(m)	D(m)	Quantity	Rate	Amount
14	KSRRB M500-7 : Providing and applying tack coat using 80/100 grade bitumen (VG10) on prepared black topped surfaces at 2.5 Kg per 10 sqm, heating bitumen in boiler fitted with spray set (excluding cleaning of road surface) including cost of all materials, labour, HOM of machineries complete as per specifications.MORTH / Chapter 5 (P.No.161 I.No.21.7 of PW,P&IWTD SR of 2016-17)											
			Sqm	Qty as per premeasurement It No.14 P.No						2813.90	13.72	38606.71
16	KSRRB M500-19. Providing and laying bituminous concrete 30-40 mm compacted thickness with VG30 Bitumen grade using 40-60 HMP using crushed aggregates of grading II, premixed with bituminous binder at 5.4% of mix and filler, transporting the hot mix to work site, laying with a mechanical paver finisher to the required grade, level and alignment, rolling with smooth wheeled, vibratory and tandem rollers to achieve the desired compaction as per MoRT&H specification clause No. 500.9 complete in all respects as per specifications. MORTH Specification No. 509 (P.No.165 of I.No.21.22.6 in PW,P&IWTD S.R 2016-17)											
	Defence Layout											
	1st cross road											
	0.00	15.00		1	15.00	5.80	5.90	5.85	0.04	3.51		
	15.00	30.00		1	15.00	5.90	6.00	5.95	0.04	3.57		
	30.00	45.00		1	15.00	4.90	6.00	5.45	0.04	3.27		
	45.00	60.00		1	15.00	4.90	5.80	5.35	0.04	3.21		
	60.00	75.00		1	15.00	5.80	5.60	5.70	0.04	3.42		
	75.00	90.00		1	15.00	5.60	5.40	5.50	0.04	3.30		
	90.00	105.50		1	15.50	5.40	5.00	5.20	0.04	3.22		
	2nd cross road											
	0.00	15.00		1	15.00	5.10	5.00	5.05	0.04	3.03		
	15.00	30.00		1	15.00	5.00	4.90	4.95	0.04	2.97		
	30.00	45.00		1	15.00	4.90	5.00	4.95	0.04	2.97		
	45.00	60.00		1	15.00	5.00	5.00	5.00	0.04	3.00		
	60.00	75.00		1	15.00	5.00	4.80	4.90	0.04	2.94		
	75.00	90.00		1	15.00	4.80	4.50	4.65	0.04	2.79		
	90.00	101.00		1	11.00	4.50	4.20	4.35	0.04	1.91		
	3rd A cross road											
	0.00	15.00		1	15.00	5.20	4.70	4.95	0.04	2.97		
	15.00	30.00		1	15.00	4.70	4.60	4.65	0.04	2.79		
	30.00	45.00		1	15.00	4.60	4.90	4.75	0.04	2.85		
	45.00	61.00		1	16.00	4.90	4.90	4.90	0.04	3.14		
	3rd Cross Road											
	0.00	15.00		1	15.00	4.50	4.80	4.65	0.04	2.79		
	15.00	30.00		1	15.00	4.80	4.80	4.80	0.04	2.88		
	30.00	45.00		1	15.00	4.80	5.40	5.10	0.04	3.06		
	45.00	60.00		1	15.00	5.40	5.40	5.40	0.04	3.24		
	60.00	75.00		1	15.00	5.40	5.60	5.50	0.04	3.30		
	75.00	93.00		1	18.00	5.60	5.70	5.65	0.04	4.07		
	Switch factory Road (tanisandra main rd)											
	0.00	15.00		1	15.00	5.70	6.30	6.00	0.04	3.60		
	15.00	30.00		1	15.00	6.30	5.80	6.05	0.04	3.63		
	30.00	45.00		1	15.00	5.80	6.40	6.10	0.04	3.66		
	45.00	55.00		1	10.00	6.40	4.90	5.65	0.04	2.26		
	57.00	70.00		1	13.00	4.70	5.20	4.95	0.04	2.57		
	70.00	85.00		1	15.00	5.20	5.30	5.25	0.04	3.15		

Assistant Engineer 15/05/2020

Assistant Executive Engineer 15/5/2020

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BOQ Item No	Description		Units	Nos	L(m)	B1(m)	B2(m)	B(m)	D(m)	Quantity	Rate	Amount
	Chainage											
	85.00	100.00		1	15.00	5.30	6.00	5.65	0.04	3.39		
	100.00	105.00		1	5.00	6.00	6.00	6.00	0.04	1.20		
	Switch factory cross road											
	0.00	15.00		1	15.00	5.20	5.30	5.25	0.04	3.15		
	15.00	30.00		1	15.00	5.30	5.50	5.40	0.04	3.24		
	30.00	45.00		1	15.00	5.50	5.80	5.65	0.04	3.39		
	45.00	55.00		1	10.00	5.80	4.90	5.35	0.04	2.14		
	55.00	70.00		1	15.00	4.70	5.20	4.95	0.04	2.97		
									Total Qty	112.56	8645.87	973144.54
17	KSRRB M800-13 Providing and laying of hot applied thermoplastic compound 2.5 mm thick including reflectorising glass beads at 250 gms per sqm area, thickness of 2.5mm is exclusive of surface applied glass beads as per IRC:35. The finished surface to be level, uniform and free from streaks and holes complete as per specifications. MORTH Specification No. 803.(P.No.185, I.No.24.15 of PW,P&IWTD SR 2016-17)											
	Edge line		sqm									
	Defence Layout											
	1st Cross road											
	0.00	106.00		2	105.50			0.10		21.10		
	2nd cross Road											
	0.00	101.00		2	101.00			0.10		20.20		
	3rd A Cross road											
	0.00	61.00		2	61.00			0.10		12.20		
	3rd cross road											
	0.00	93.00		2	93.00			0.10		18.60		
	Switch factory Road (tanisandra main rd)											
	0.00	105.00		2	103.00			0.10		20.60		
	Switch factory cross road											
	0.00	70.00		2	70.00			0.10		14.00		
									Total Qty	106.70	585.54	62477.12
											Total	3381603.18

Consultant

Assistant Engineer

Assistant Executive Engineer

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